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FUTURE M918 PRACTICE ROUND REPLACEMENT

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OUTLINE

Objective of the Briefing

- To provide potential System Contractors with information pertaining to incorporating future technology
- To provide background information on MK281
- To provide visual information on MK281



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TECHNOLOGY INSERTION CLAUSE

At any time during the course of this contract, the government may require, at its option, the insertion of state-of-the-art, advanced or alternate technology into the items called for under the contract, including replacement or supplemental cartridge assemblies, or the entire cartridge, if desired. Government directed technology upgrades will be initiated through a contract modification via a mandatory ECP or by mandating the insertion of a government directed commercial component(s) or military hardware. The insertion may be limited to certain CLINS and quantities at the Government's discretion. If a government directed technology insertion will cause an increase or decrease in the cost or time required for performance of this contract, an equitable adjustment shall be negotiated and incorporated into the contract.



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STRATEGY ON M918

- **GOAL:** Obtain round that allows troops to maneuver on the same ground they fire
- **OBTAIN:**
 - Non-Explosive round to replace M918
 - Have day and night capability
 - Have lower unit price
 - Green ammunition



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MK281 Background

MK281 (Non-Dud Producing Trainer for Mk19 MG)

- USMC item adopted by Army
- Currently Daytime Signature Only
- Will Replace M918 Pending Night Time Capability ECP
- Present TDP holder is Nico (Large Foreign Owned Business)
- Currently Pspec - No TDP, No rights at this time





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Future Round Requirements

- US ARMY Performance Specification
 - “Performance Specification for the Cartridge, 40 millimeter: Low cost training (LCT) XM1023” (PRF12992287)
- Only one design has passed Qualification testing
 - NICO Pyrotechnik Design Passed
 - Argus Design failed powder visibility
- Any new design would be required to pass a qualification test.



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Future Round Quantities

- Future Buys for the ARMY have not been firmed-up
- Army buys are planned at 100,000 per year until a night capability is developed at which time there will be a gradual expansion until there is a one for one replacement with the M918
- USMC buys are approximately 400K per year



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Performance

- Fired from the MK19 GMG
- Linked
- Velocity: 790+/-10 ft/sec
- Must be visible at 1200 meters Min
 - Desired is 2000 meters
- Packaged 32 rds in PA120 Containers
- Weight: 0.76lb per round
- Ballistic match of the M430A1/M918TP/M385





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MK281 NICO Cartridge

- Day / Night Mark Technology
 - Patent Protected Technology
- Plastic Rotating Band
 - Reduced Barrel Wear
- High Precision Propulsion
 - *Exceeds US Army Requirements*





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MK281 Status

Where We Are

Two TP Ctgs

**Day time TP Round
(MK281)**

**Day/Night TP (M918)
with energetic
Projectile**

**Single Foreign
Source (MK281)**

**Multiple Sources
(M918)**

High Cost (> \$20)

Where We Want to Be

One TP Ctg

**Day/Night TP Round
(MK281 MOD 1)**

Multiple Sources

Reduced Cost (< \$20)



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MK281 Path Forward

How do we get to where we want to be?

One Day/Night TP Round

- Incorporate night time visual signature (e.g. Chemlight)

Multiple Sources

- License TDP from Nico
- Verify additional commercial designs to meet performance requirements
- Establish Government Design

Reduce Cost

- Economical Eng Changes to Nico Design (e.g. Single Chamber Ctg Case)
- Increase procurement volume
- Incorporate into Small Business Base
- Competitive Procurement

